

# Therapeutic Alliance Building During the Child Psychiatric Intake: Does VTC Make a Difference?

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**ABSTRACT** This study examined potential changes in perceptions of therapeutic (“working”) alliance during a child’s initial diagnostic interview from the parent’s perspective. The major study objective was to determine whether parental perceptions of alliance vary by group (video conferencing [VTC], face-to-face [FTF]) over time (Pre, Post intake). It was predicted that parental alliance would be more favorable after an FTF encounter relative to a VTC intervention.

Participants were recruited and enrolled in two study cohorts between August 2000 and October 2005. Parents completed the Parental Perceptions of Alliance Questionnaire (PPAQ) immediately before (pre-PPAQ) and after (post-PPAQ) their interview.

Analysis of variance (ANOVA) tests showed that the mean PPAQ scores of FTF groups being higher than that of VTC groups (controlling for time) was statistically significant,  $F(1,144) = 4.14, p = 0.04$ . However, upon further analysis, the interaction effect was not significant,  $F(1,144) = 1.20, p = 0.28$ .

Findings from the current exploratory study suggest that, at least following an intake child psychiatric examination, parents’ perceptions of therapeutic alliance are stronger than they were before intake for those conducted in an FTF format as well as through VTC.

## INTRODUCTION

Between 10% and 20% of all children and their families are in need of mental health intervention—crisis, routine, or preventative.<sup>1</sup> In addition, the national shortage of child and adolescent psychiatrists, who predominantly work in urban centers, has exacerbated the delivery crisis.<sup>2</sup> Access to mental health professionals from remote or underserved areas is a major public health problem.<sup>3</sup> Telepsychiatry, the use of telecommunications technology to connect a patient to a health care provider through live video transmission, is an economically feasible method to help patients obtain services from mental health specialists. Through video conferencing (VTC), a provider who lives far away can see and speak to a patient through a television or a computer screen. However, VTC interviews sharply contrast with typical diagnostic sessions that are conducted in-person in a traditional office, clinic, or hospital setting. The effectiveness of VTC in

establishing and maintaining therapeutic alliance—the close patient–doctor bond that has been shown to be an important determinant of treatment success—has yet to be systematically examined.<sup>4</sup> There is a critical need to study the “comparative effectiveness” of VTC vs. traditional face-to-face (FTF) evaluations.

The evidence base for VTC as a viable method of evaluation and treatment of adult psychiatric illness is well documented. Several studies have shown that VTC evaluations and follow-up treatments for a variety of mental disorders have produced equivalent outcomes as well as similar levels of satisfaction compared to their FTF counterparts.<sup>5,6</sup> However, the VTC data is limited in its examination of mediators of therapeutic outcome, most specifically, therapeutic alliance. For several decades, VTC researchers have studied its use for educational, administrative, and consulting services.<sup>7</sup> Inter-rater diagnostic reliability of in-person interviews vs. telepsychiatry as well as patient, consultant, and psychiatric satisfaction have been verified.<sup>8–10</sup> Relatively fewer studies have directly addressed the application of VTC in the field of child and adolescent psychiatry. There is an indication that parents are satisfied with the care provided through telepsychiatry and that a strong therapeutic alliance can occur between parents and therapist when treatment is delivered via VTC.<sup>11,12</sup>

Therapeutic alliance refers to the “quality and nature of the interaction between the patient and therapist, the collaborative nature of that interaction on the tasks and goals of treatment, and the personal bond or attachment that emerges in treatment.”<sup>13</sup> However, this definition has undergone a lot of revisions through the years.

Jon G. Allen defined therapeutic alliance in terms of the patient’s collaborative work in psychotherapy, which he translated into a “collaboration,” or global scale in addition

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to scales for the mediating variables: trust, sense of acceptance, optimism, and expression of affect. Within the scales for the mediating variables, trust was defined by the phrases “capacity to understand,” and “the therapist’s wish to be helpful.”<sup>14</sup>

In their research, Allen et al rated typed transcripts of individual psychotherapy sessions and, using their scales, they found that the most notable result was that the mediating variable with the highest correlation to the global scale of collaboration was optimism. Thus, the concept of optimism found its way into the therapeutic alliance construct.

Many of the pioneers in the study of therapeutic alliance created their own scales. Luborsky and his team established the Helping Alliance Counting Signs as a measure of therapeutic alliance.<sup>15</sup> This measure identified two important components of therapeutic alliance called signs: type 1 is based on the patient’s experience of the therapist as helpful and supportive and included six signs: 1, the patient feels the therapist is warm and supportive; 2, the patient believes the therapist is helping; 3, the patient feels changed by the treatment; 4, the patient feels a rapport with the therapist; 5, the patient feels the therapist respects and values the patient; 6, the patient conveys a belief in the value of the treatment process. Type 2 is a “helping relationship” based on a joint effort against the patient’s problems. A similar measure was later developed by joining these two signs into a global scale called the Helping Alliance Global Method in 1983, and then a self-reported measure in 1985 called the Helping Alliance Questionnaire.

In more than 2,000 studies on adults, a consistent positive association between therapeutic alliance and treatment outcome has emerged.<sup>16,17</sup> In fact, the evidence suggests that the therapeutic alliance may be equally if not more powerful than treatment type in predicting positive treatment change.<sup>18</sup> In contrast, there has been less research examining the therapeutic alliance in child and adolescent mental health.<sup>19</sup> A review of 23 studies found an overall therapeutic relationship-outcome associated across studies, which was modest but robust.<sup>20</sup> In a recent study, the quality of the child-therapist and the parent-therapist alliance predicted therapeutic changes in the children. The parent-therapist alliance also predicted improvements in parenting practices in the home.<sup>21</sup>

This study was an initial, exploratory attempt to examine therapeutic alliance in child and adolescent telepsychiatry through the perspective of the parents’ perception of the alliance between themselves and their child’s clinicians as well as their perception of the alliance between their child and their clinicians at intake. Although therapeutic alliance has mostly been applied to psychotherapy, the principles are equally germane to assessment in consultations and medication management. Therefore, this study focused on the elements of the developing therapeutic alliance from the first psychiatric interview based on the parental perspective. It was designed to determine whether there is a difference in parental perceptions of therapeutic “parental” alliance when

comparing VTC to FTF interviews. Parental opinions both before and after the initial interview assessments were compared. It was hypothesized that parental alliance would be more favorable after an FTF encounter compared to a VTC encounter, because of VTC’s lack of certain human factors (such as nonverbal clues) that make FTF encounters more natural and interactive.

## **METHOD**

### **Participants**

The study sample was composed of two cohorts. In the first cohort (August 2000–May 2003), parents of children attending two semirural pediatric clinics who had nonemergently requested a consult from a major military medical center were approached by study investigators to participate in the study. Forty-one agreed to have their children participate and thus became the VTC group. One hundred five nonemergent new patients from the child and adolescent psychiatry service in a major medical center, between March 2000 and October 2001, constituted the FTF group for cohort one. The second cohort (February 2005–October 2005) consisted of 120 nonemergent patients from the same major medical center used to conduct the first cohort’s FTF encounters. All of the cohort two encounters were done FTF. There were no exclusion criteria on the basis of diagnosis. Exclusions from the study were urgent cases with possible imminent danger to the child or others who would be directed to the nearest and most appropriate emergency facility with psychiatric care access. All subjects enrolled in the study were consented and the study was approved by the medical center’s IRB.

### **Primary Outcome Measure**

The PPAQ was developed by the investigators following a review of existing measures and the literature. Items from the questionnaire were inspired by Bordin’s well-studied construct as well as Luborsky and Allen. It was hypothesized that there would be one general factor of alliance as Allen’s article suggested, but also three individual subfactors based on the theoretical construct underlying therapeutic alliance.

The PPAQ (see Table I) consists of 21 items keyed to a 5-point Likert scale format. The original components of the questionnaire were: 1, quality of parent’s relationship with psychiatrist; 2, perception of the child’s relationship with psychiatrist; 3, perception of the psychiatrist as helping; 4, perception of the psychiatrist as collaborative; 5, hopefulness as a result of the session. These components are derived from signs in type 1 of Luborsky’s construct although items 1 and 2 are more general than Luborsky’s first sign of the patient feeling the therapist is warm and supportive. Item 3 is almost identical to Luborsky’s second sign. Items 4 and 5 are derived from Allen’s construct of “collaboration” as a global construct and his mediating variable of optimism that correlated most strongly with collaboration. The components of the parental alliance questionnaire were then condensed into

**TABLE I.** Parental Perceptions of Alliance Questionnaire

1. The psychiatrist will be able to be actively involved with my child.
2. The psychiatrist will understand my child's problems.
3. The psychiatrist will be able to relate to me.
4. The psychiatrist will be able to relate to my child.
5. I will leave this session with a clear sense of the psychiatrist's style of relating/personality.
6. I have high hopes about the outcome of this session.
7. The psychiatrist will be able to sympathize with me.
8. The psychiatrist will be able to sympathize with my child.
9. I have concerns about the manner in which this interview will be conducted.
10. I will feel comfortable with the psychiatrist.
11. This session will give me new ways of looking at my child's problems.
12. This session will be confusing.
13. My child's ability to express feelings will be difficult.
14. My child will be able to be accepted and understood.
15. I will be able to work with psychiatrist during the session.
16. The assessment will have a clear purpose.
17. The psychiatrist will not be helpful to my child.
18. I trust in the psychiatrist's skills
19. I will have new ways of looking at my child's problems.
20. The psychiatrist and I will have mutually agreed upon goals.
21. I will be frustrated by the session.

4 categories by combining numbers 1 and 2 into a component of relationship because of their similarities in wording.

Exploratory factor analyses supported the appropriateness of using a global, summary, perceived alliance score, with higher scores indicating more positive appraisals. The baseline Parental Perceptions of Alliance Questionnaire pre-test (pre-PPAQ) and follow-up (post-PPAQ) versions were identical except for verb tense (e.g., "will be" vs. "was") and the inclusion of demographic information at baseline.

### Procedure

Parents completed the PPAQ immediately before (pre-PPAQ) and after (post-PPAQ) their interview. Because of changes in the study procedures over time, the cohort one FTF group completed only the pre-PPAQ interview questionnaire, whereas the VTC group completed both. Cohort two parents were all in the FTF condition and completed both versions of the PPAQ.

### RESULTS

On completion of the study, a total of 260 parents participated. Men represented about one-third (33%) of the total sample population. The average age of the parent was 38 years while that of the child was 11 years. (See Table II for a complete description of their demographics.)

Preliminary Pearson correlation analyses of potential demographic confounds (variables correlating with both the independent variable—group [VTC, FTF] and the dependent variable—summary PPAQ score) were performed. Those possible confounds included the child's age, the

**TABLE II.** Demographics of All Participants in the Study

Gender of Parent				Total Number of Males and Females
Male		Female		
Total Number	Percent	Total Number	Percent	
85	33	175	67	260
Average Age of Parent		Average Age of Child		
Total number = 257		Total number = 257		
38 (SD = 7.7)		11 (SD = 4.1)		

parent's age and gender, and how the parent rated their child or their own personal prior FTF or VTC mental health experience.

A Pearson correlation showed no significant difference between the mean scores of the pre and post questionnaires in regards to gender (Pre:  $p = 0.80$ ,  $N = 259$ ; Post:  $p = 0.87$ ,  $N = 146$ ), parental age (Pre:  $p = 0.39$ ,  $N = 256$ ; Post:  $p = 0.94$ ,  $N = 144$ ), or if a child/parent had a history of prior FTF mental health evaluation (Pre:  $p = 0.08$ ,  $N = 242$ ; Post:  $p = 0.21$ ,  $N = 136$ ).

A Pearson correlation identified the child's age (Pre: correlation = 0.12,  $p < 0.05$ ,  $N = 256$ ; Post: correlation = 0.17,  $p < 0.05$ ,  $N = 143$ ) and the satisfaction of the child/parent's prior VTC mental health evaluation on the pre-PPAQ (correlation = 0.27,  $p < 0.001$ ,  $N = 183$ ) as potential confounders requiring attention. However, following the examination of the group by time PPAQ means, stratified by child's age (median split), there was no indication of a potential confounding effect of the child's age on the results. Moreover, the significant difference found in the pre-PPAQ of prior VTC experience became insignificant in the post-PPAQ (correlation = 0.04,  $p = 0.69$ ,  $N = 99$ ).

To test for potential baseline differences in expectations regarding perceived alliance, as well as differential group change over time, a group (VTC, FTF)  $\times$  time (Pre, Post) repeated measures ANOVA was computed on the summary PPAQ scores, using SAS v9.1 (see Table III). Analysis of the simple main effects found no significant VTC vs. FTF group baseline differences on the pre-PPA total score,  $F(1,144) = 1.03$ ,  $p = 0.31$ . In contrast, a statistically significant group difference was found on the post-intake PPA score,  $F(1,144) = 5.33$ ,  $p = 0.02$ , with the FTF group reporting higher perceived alliance ( $M = 86.71$ ;  $SD = 12.42$ ) than the VTC group ( $M = 81.54$ ;  $SD = 10.61$ ) following the intake evaluation (see Table IV).

Since there were no baseline differences between the two groups for the pre-questionnaire, it was felt that the significant group difference in the post-intake PPA score was because of the intervention. A paired  $t$ -test showed that the PPAQ mean change Pre vs. Post for the FTF group was significant,  $t(106) = -4.44$ ,  $p < 0.0001$ . A paired  $t$ -test showed that the PPAQ mean change Pre vs. Post for the VTC group was not significant,  $t(38) = -1.56$ ,  $p = 0.13$ , which further indicated that time changes on PPAQ varies as a function of group.



**TABLE III.** Summary of Analysis of Variance Pre–Post Differences Comparisons

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio (F)	p-value
Group	1	799.80	799.80	4.14	0.04
Error (Between)	144	27,825.31	193.23		
Time	1	1,242.49	1,242.49	12.71	0.0005
Interaction Group × Time	1	117.12	117.12	1.20	0.28
Error (Within)	144	14,075.99	97.75		

**TABLE IV.** Scheffe Tests Comparing Pre- and Post-Questionnaire Parental Alliance in VTC vs FTF

Treatment Group	VTC		FTF	
Questionnaire	Pre-questionnaire	Post-questionnaire	Pre-questionnaire	Post-questionnaire
Total Number (N)	N = 39	N = 39	N = 107	N = 107
Mean (Standard Deviation)*‡	78.31 <sup>A</sup> (9.89)	81.54 <sup>A</sup> (10.61)	80.62 <sup>A</sup> (12.86)	86.71 <sup>B</sup> (12.42)

\*Means with the same superscript are not significantly different.

‡Higher scores denote greater perceptions of alliance.

ANOVA tests also showed that the mean FTF groups' PPAQ scores being higher than the mean VTC groups' PPAQ scores (controlling for time) was statistically significant,  $F(1,144) = 4.14$ ,  $p = 0.04$ . However, upon further analysis, the interaction effect was not significant,  $F(1,144) = 1.20$ ,  $p = 0.28$ . So, although there was a significant positive interaction Pre vs. Post for the FTF intervention, we cannot say that it was "better" than the VTC intervention, which showed a nonsignificant positive interaction when comparing Pre vs. Post scores.

## DISCUSSION

This study examined the therapeutic alliance in child and adolescent telepsychiatry. This alliance was observed indirectly through the perspective of the parents' perception of the alliance between themselves and their child's clinicians as well as the alliance between their child and the clinicians. A total of 260 parent surveys were completed following a child intake psychiatric examination. The results showed that the parents' perceptions of therapeutic alliance were stronger than they were before intake for those conducted in a traditional FTF format as well as with VTC.

There are several study limitations that must be addressed. The most important limitation is the passage of time (history effects) between the two cohorts, which places the comparison in question. The VTC subjects were seen before the events of 9/11, whereas the FTF subjects were interviewed afterwards. It is impossible to predict how the significant trauma caused by these events (e.g., affecting dependents of active duty soldiers because of more frequent deployments) may have altered the newer cohort. Also, it is difficult to assess whether familiarity with VTC in the newer cohort (because of the passage of time) affected comparability.

However, the fact that there were no significant baseline differences in the pre-intake PPAQ scores between the two cohorts gives support to the argument that history was not a major confound. Besides, although teleconferencing has become quite common today, programs such as Skype were not as readily available to help service members keep in contact with their family members during the early part of the war, which is when the second cohort was studied.

Another limitation has to do with the fact that there was no statistically significant interaction effect between time and type of group. This was surprising since the higher PPAQ means found in the FTF group compared to the VTC was statistically significant. Also, the paired *t*-tests indicated that the time differences on PPAQ varied as a function of group but the interaction test showed the difference in means between the two groups in the post-PPAQ to not be significant. A possible explanation for this could be that the VTC group of 39 people was not enough to show a statistically significant difference using the more stringent interaction test. A larger sample size and a more equal to time sample size may have detected a significant interaction.

Other limitations include the utilization of a nonvalidated, investigator-developed instrument (i.e., the PPAQ) as well as the absence of multimethod and informant–rater outcome alliance measures. Exploratory factor analyses of the questionnaires supported the appropriateness of using a global, summary, perceived alliance score, with higher scores indicating more positive appraisals. Also, retrospective analyses suggest that the new questionnaire is consistent with researched working alliance inventories in the adult domain.<sup>22,23</sup>

Nonetheless, the findings of the current study are suggestive and highlight the critical need for future studies examining the comparative effectiveness of VTC vs. traditional FTF evaluation, diagnosis, and treatment. Given the shortage of child psychiatrists, in concert with the significant barriers that make access to children's mental health services difficult, VTC effectiveness studies assessing child and parent satisfaction, clinical and quality of life outcomes, and cost–benefit/effectiveness studies, along with the analysis of key mediators/moderators such as therapeutic alliance on process and outcomes, appear warranted. Every day the gap between the need for psychiatric care vs. the availability for psychiatric care widens, especially for children. Further investigation into the role of therapeutic alliance in VTC outcomes could help us better understand how to fill these gaps and how to make the most of limited mental health resources.

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## REFERENCES

1. Lahey B, Glagg E, Bird H, et al: The NIMH Methods for the Epidemiology of Child and Adolescent Mental Disorders (MECA) Study: background and methodology. *J Am Acad Child Adolesc Psychiatry* 1996; 35(7): 855–64.
2. Fritz G: The shortage of child psychiatrists in the U.S.: causes and solutions. NY STEPS Roundtable, September 10, 2007. SCAA: Our Collaborations. Available at [www.scanny.org/collaborations](http://www.scanny.org/collaborations); accessed December 2011.
3. United States Public Health Service Office of the Surgeon General: Mental Health: A Report of the Surgeon General. Rockville, MD, Department of Health and Human Services, U.S. Public Health Service, 1999.
4. Horvath A, Symonds B: Relation between working alliance and outcome in therapy: a meta-analysis. *J Counsel Psychol* 1991; 38: 139–49.
5. O'Reilly R, Bishop J, Maddox K, Hutchinson L, Fisman M, Takhar J: Is telepsychiatry equivalent to face-to-face psychiatry? Results from a randomized controlled equivalence trial. *Psychiatr Serv* 2007; 58: 836–43.
6. De Las Cuevas C, Arredondo MT, Cabrera MF, Sulzenbacher H, Meise U: Randomized clinical trial of telepsychiatry through videoconference versus face-to-face conventional psychiatric treatment. *Telemed e-Health* 2006; 12(3): 341–50.
7. Brown F: A survey of telepsychiatry in the USA. *J Telemed Telecare* 1995; 1: 19–21.
8. Baigent M, Lloyd C, Kavanagh S, et al: Telepsychiatry: “tele” yes, but what about the “psychiatry”. *J Telemed Telecare* 1997; 3(1): 3–5.
9. McLaren P, Law V, Ferreira A, O'Flynn D, Lisedge M, Watson J: Telepsychiatry: outpatient psychiatry by videolink. *J Telemed Telecare* 1996; 2(1): 59–62.
10. Clarke P: A referrer and patient evaluation of a telepsychiatry consultation-liaison service in South Australia. *J Telemed Telecare* 1997; 3(1): 12–4.
11. Myers K, Valentine J, Melzer S: Child and adolescent telepsychiatry: utilization and satisfaction. *Telemed e-Health* 2008; 14(2): 131–7.
12. Lingely-Pottie P, McGrath PJA: A therapeutic alliance can exist without face-to-face contact. *J Telemed Telecare* 2006; 12(8): 396–9.
13. Horvath AO, Bedi RP: The alliance. In: *Psychotherapy Relationships That Work: Therapist Contributions and Responsiveness to Patients*, pp 37–69. Edited by Norcross JC. New York, Oxford University Press, 2002.
14. Allen JG, Newsom GE, Gabbard GO, Coyne L: Scales to assess the therapeutic alliance from a psychoanalytic perspective. *Bull Menninger Clin* 1984; 48(5): 383–400.
15. Luborsky L: Therapeutic alliances as predictors of psychotherapy outcomes: factors explaining the predictive success. In: *The Working Alliance: Theory, Research, and Practice*, pp 38–50. Edited by Horvath AO, Greenberg LS. New York, NY, Wiley, 1994.
16. Norcross JC (editor): *Psychotherapy Relationships That Work: Therapists Contributions and Responsiveness to Patients*. New York, Oxford University Press, 2002.
17. Orlinsky DE, Rønnestad MH, Willutzki U: Fifty years of psychotherapy process-outcome research: continuity and change. In: *Bergin and Garfield's Handbook of Psychotherapy and Behavior Change*, Ed 5, pp 307–89. Edited by Lambert MJ. New York, Wiley, 2004.
18. Martin DJ, Garske JP, Davies MK: Relation of therapeutic alliance with outcome and other variables: a meta-analytic review. *J Consult Clin Psychol* 2000; 68: 438–50.
19. Green J: Annotation: the therapeutic alliance—significant but neglected variable in child mental health treatment studies. *J Child Psychol Psychiatry* 2006; 47(5): 425–35.
20. Shirk SR, Karver M: Prediction of treatment outcome from relationship variables in child and adolescent therapy: a meta analytic review. *J Consult Clin Psychol* 2003; 71: 452–64.
21. Kazdin A, Whitley M, Marciano P: Child-therapist and parent-therapist alliance and therapeutic change in the treatment of children referred for oppositional, aggressive, and antisocial behavior. *J Child Psychol Psychiatry* 2006; 47(5): 436–45.
22. Horvath AO, Greenberg LS: Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology* 1989; 36: 223–33.
23. Tracey TJ, Kokotovic AM: Factor structure of the Working Alliance Inventory. *Psychological Assessment: A Journal of Consulting and Clinical Psychology* 1989; 1: 207–10.